

ABSTRACT OF THE DISCLOSURE

One or more methods and systems of effectively retrieving data stored in a media of a storage device are presented. The one or more methods and systems are implemented by way of correcting and detecting errors using a multi-stage decoding process. In one embodiment, the storage device comprises a magnetic hard drive. In one embodiment, the system and method applies an encoding/decoding technique that allows error correction and detection to be performed over a number of successive decode stages or processing stages. Use of the system and method increases the maximum number of symbol errors that may be corrected in an encoded codeword, providing an improvement in data recovery.